

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,973,475 B2  
APPLICATION NO. : 09/399065  
DATED : December 6, 2005  
INVENTOR(S) : Hayes

Page 1 of 8

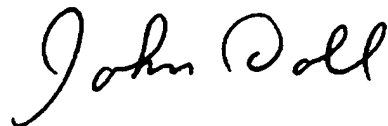
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The Title Page, showing an illustrative figure should be **deleted** and **substitute** therefor the attached Title Page.

**Delete** Drawing Sheets 1-6 and **substitute** therefor the Drawing Sheets consisting of Figs 1-9 as shown on the attached pages.

Signed and Sealed this

Twenty-sixth Day of May, 2009

A handwritten signature in black ink that reads "John Doll". The signature is written in a cursive style with a large, stylized 'J' and 'D'.

JOHN DOLL  
*Acting Director of the United States Patent and Trademark Office*

(12) **United States Patent**  
**Kenyon et al.**

(10) Patent No.: **US 6,973,475 B2**  
 (45) Date of Patent: **Dec. 6, 2005**

(54) **DYNAMIC SCALABLE MULTI-MEDIA  
 CONTENT STREAMING**

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(\*) Notice: Subject to any disclaimer, the term of this  
 patent is extended or adjusted under 35  
 U.S.C. 154(b) by 375 days.

(21) Appl. No.: **09/399,065**

(22) Filed: **Sep. 18, 1999**

(65) **Prior Publication Data**

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(51) Int. Cl.<sup>7</sup> ..... **G06F 15/16**

(52) U.S. Cl. .... **709/203; 709/204; 709/217;**  
**709/219; 709/231; 709/246**

(58) Field of Search ..... **709/202-204,**  
**709/217-219, 227-228, 231-232, 246-248; 345/418-421**

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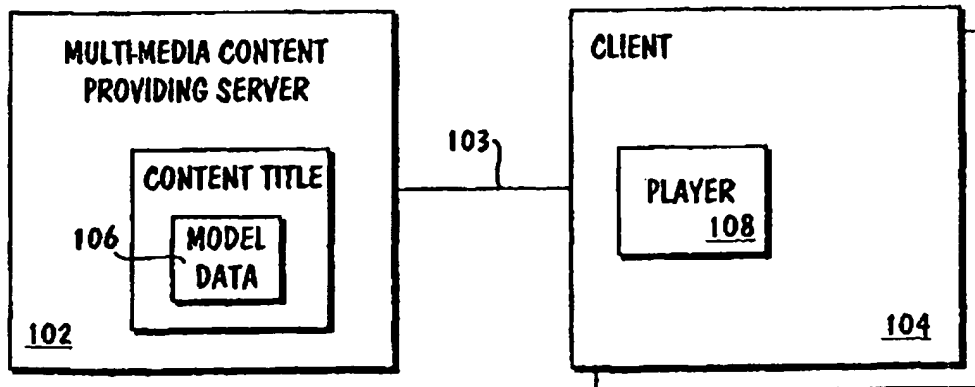
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 Wyatt, P.C.

(57) **ABSTRACT**

A novel method for streaming multi-media content is dis-  
 closed. Multiple versions of model data tailored for different  
 operating environments differentiated in accordance with  
 value(s) of at least one operating characteristic of remote  
 requesting client computer systems are stored in a multi-  
 media content providing server. A multi-media content  
 player of a client computer system determines the operating  
 characteristic value(s) for the at least one operating charac-  
 teristic of the client computer system. The multi-media  
 content player adaptively requests appropriate versions of  
 selected ones of the model data, based at least in part on the  
 determined operating characteristic value(s) of the at least  
 one operating characteristic of the client computer system.  
 In response, the providing server streams the requested  
 versions of the requested model data to the multi-media  
 content player for rendering. As a result, user experience at  
 the client computer system is enhanced.

38 Claims, 6 Drawing Sheets



U.S. Patent

Dec. 6, 2005

Sheet 1 of 6

6,973,475 B2

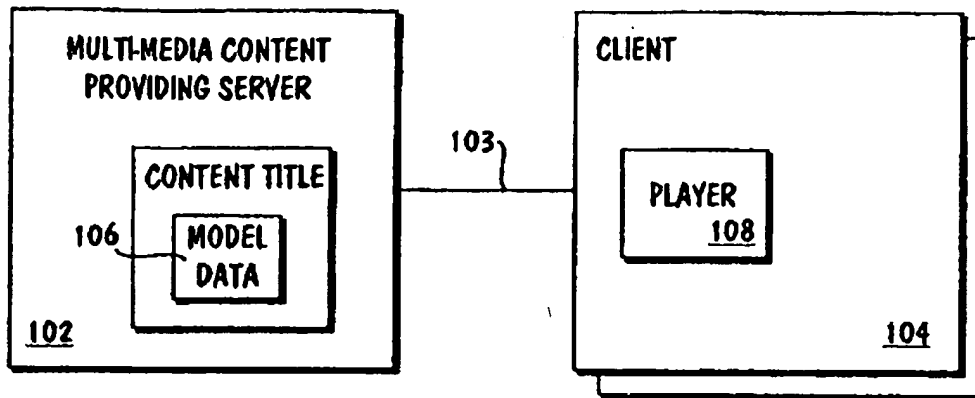


FIG. 1

| WEIGHT | CPU      | MEMORY  | BANDWIDTH | BUS<br>SPEED | DSP<br>SUPPORT | GRAPHICS<br>SUPPORT |
|--------|----------|---------|-----------|--------------|----------------|---------------------|
| 0      | 100 MHZ  | 8 MEG   | 14.4 K    | 60 MHZ       | NO             | NO                  |
| .2     | 200 MHZ  | 16 MEG  | 28.8 K    |              |                |                     |
| .4     | 400 MHZ  | 32 MEG  | 56 K      | 100 MHZ      |                |                     |
| .6     | 600 MHZ  | 64 MEG  | DSL       |              |                |                     |
| .8     | 800 MHZ  | 128 MEG | CABLE     | 266 MHZ      |                |                     |
| 1      | 1000 MHZ | 256 MEG | T1        |              | YES            | YES                 |

FIG. 2

U.S. Patent

Dec. 6, 2005

Sheet 2 of 6

6,973,475 B2

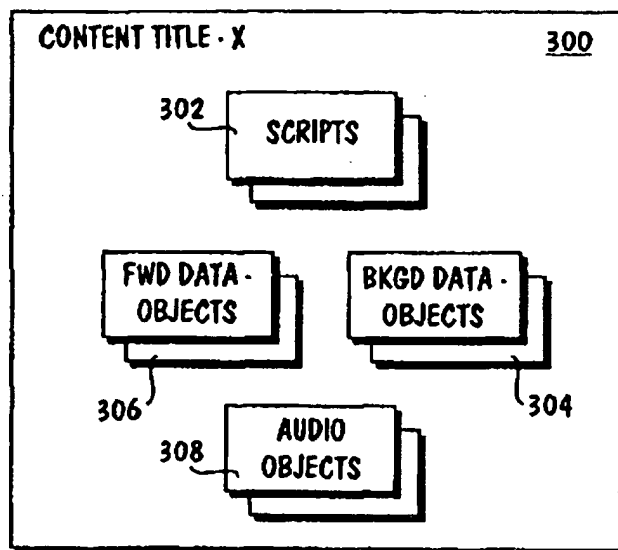
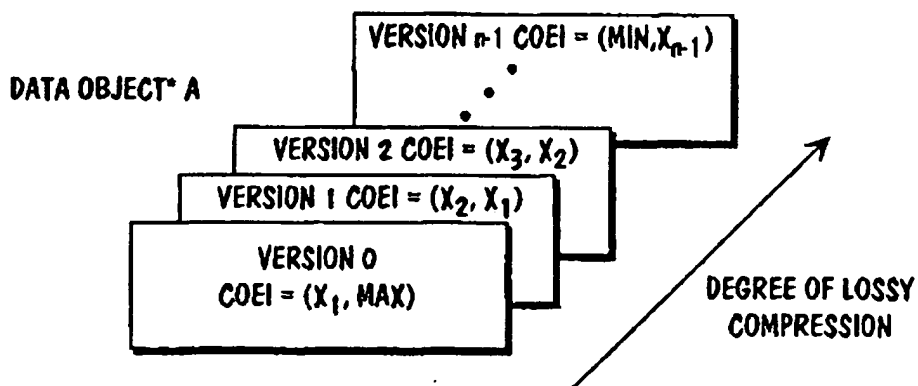


FIG. 3



\* GEOMETRY, COLOR, TEXTURE, ANIMATION, LIGHTING, ETC.

FIG. 4

U.S. Patent

Dec. 6, 2005

Sheet 3 of 6

6,973,475 B2

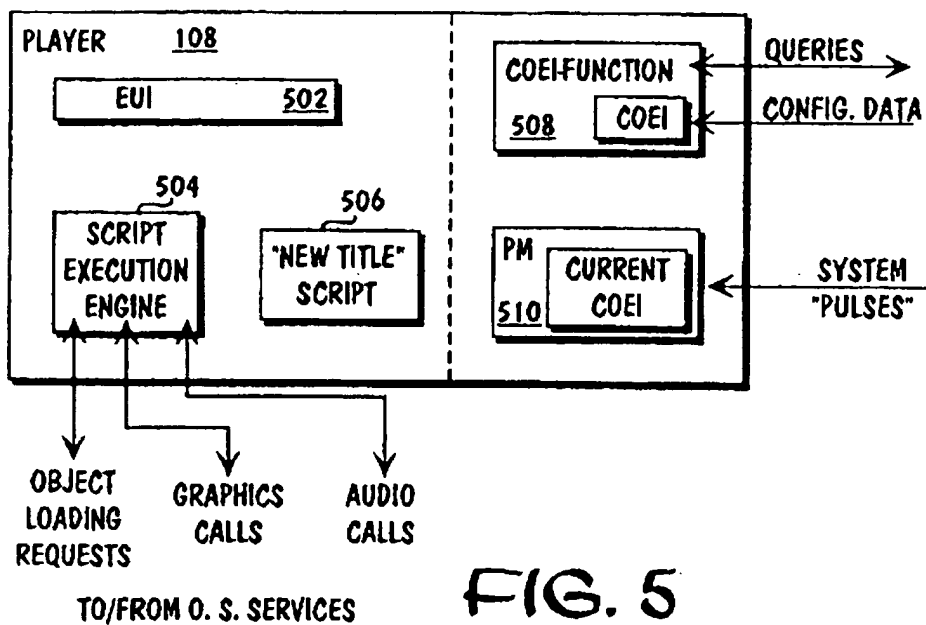


FIG. 5

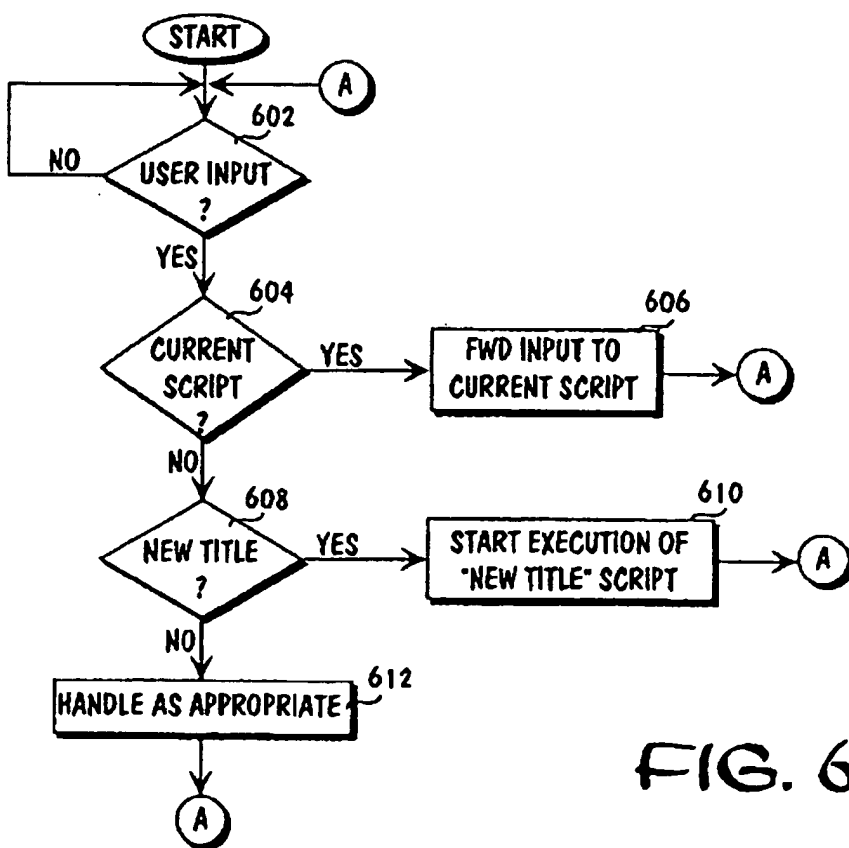
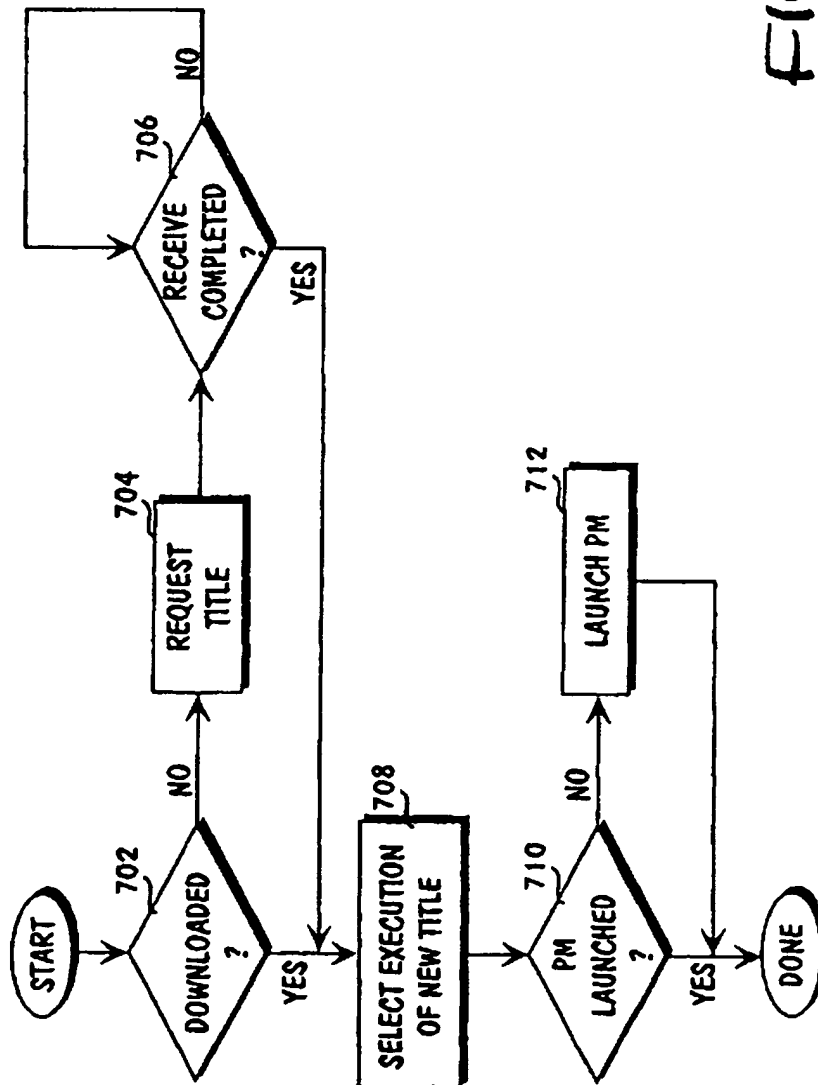


FIG. 6



U.S. Patent

Dec. 6, 2005

Sheet 5 of 6

6,973,475 B2

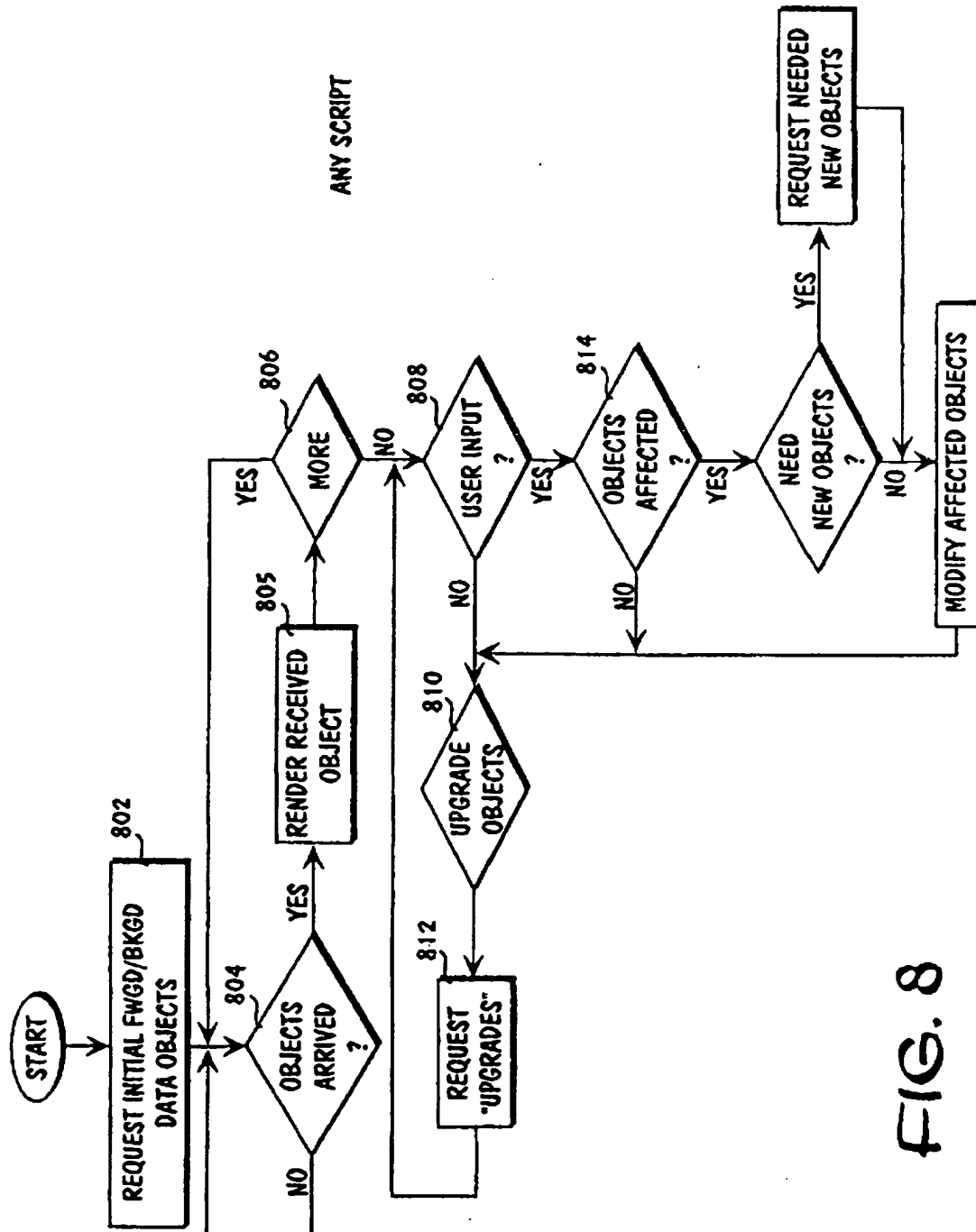


FIG. 8

U.S. Patent

Dec. 6, 2005

Sheet 6 of 6

6,973,475 B2

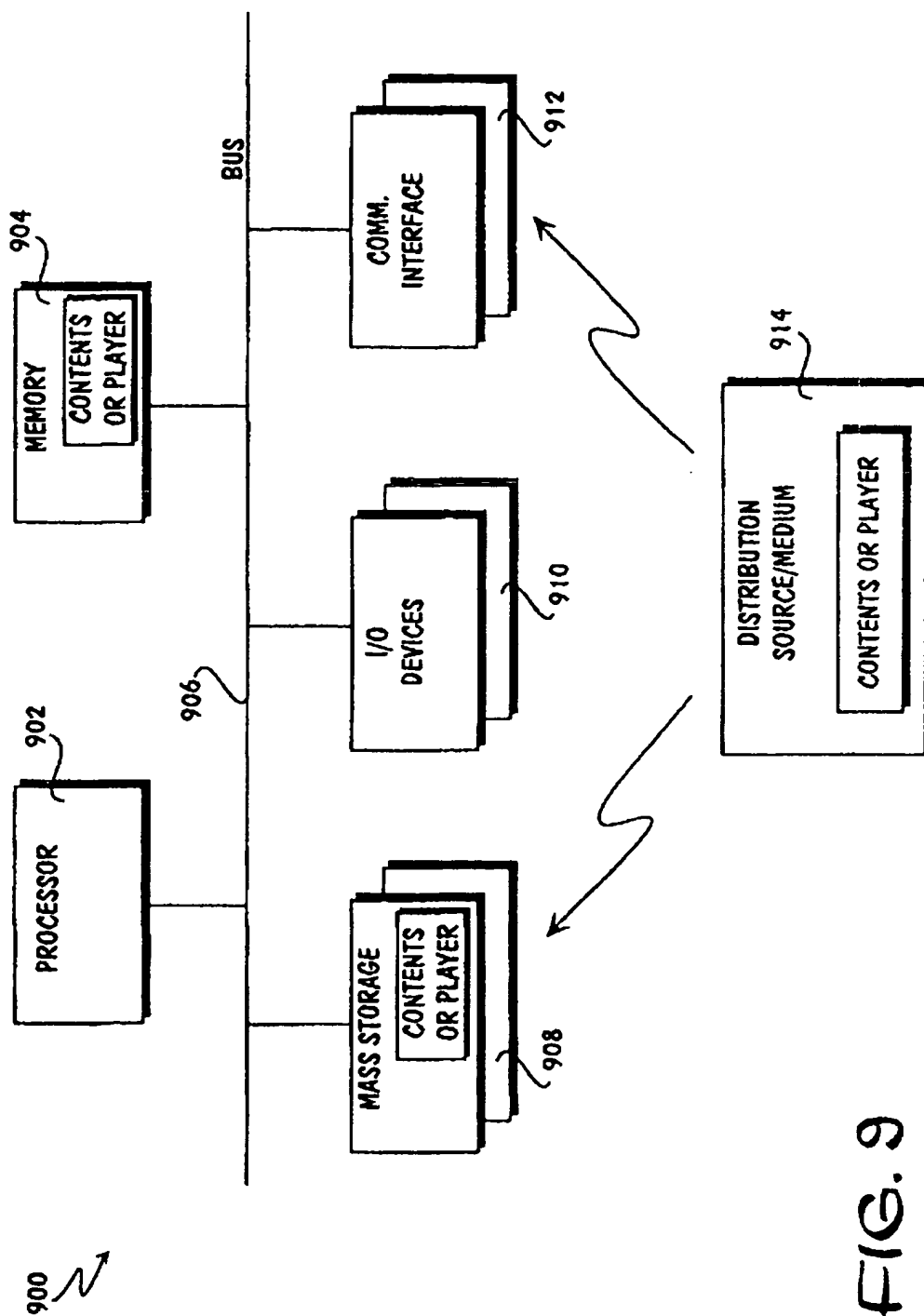


FIG. 9